QCWA HOT LINE REPORT

Volume 3, No. 9 & 10 September/October, 1980

CHAPTER SECRETARIES RECEIVING THE HLR FROM HEADQUARTERS ARE ASKED TO DISSEMINATE THE INFORMATION, ON THE AIR AND AT CHAPTER MEETINGS SO MEMBERS MAY BE ADVISED OF ACTIVITIES.

PRELIMINARY AND INCOMPLETE AGENDA, BOARD OF DIRECTORS MEETING, FRIDAY, OCTOBER 31, 1980.

This Preliminary and incomplete agenda is provided so that memebers may have a general knowledge of matters which may come before the board, at it's Orlando meeting. It should not be inferred that other matters may be considered or that all of those listed herein will be acted upon.

Friday, October 31, 1980

9:30AM - 11:30 AM	The Board of Directors will sit in open session, any member having matters to place before the Board will be given the opportunity to be heard.
11:30AM - 1:30PM	Board will adjourn for lunch
1:30PM - 5:30PM	Board will meet in executive session to discuss and act on matters heard in the morning open session, and matters on the agenda

AGENDA ITEMS:

Minutes of the Last meeting, read and approve or reject

Treasurers Report

General Managers Report

Confirm newly chartered Chapters

1) Consideration of establishing special family group membership rates for QCWA

2) Re-consideration of April, 1980 amendment to Article VI, Section 2, of the bylaws dealing with candidate eligibility

3) Consideration of foreign dues structure and rates

4) Amend the bylaws of QCWA to clearly specify that members must continue to be amateur licensed to be eligible for QCWA membership.

5) Consider an amendment to the bylaws which clearly specifies the number of members of the board required to amend the bylaws, i.e., 2/3 of the elected Board, or other number.

6) Consider transfer of unearned dues of SK members for scholarship fund

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The Friday morning (9:30 AM) Board session, at Orlando, is for the express purpose of members providing input to the Board which may affect its decisions made in private session later in the day. The morning session of two hours is open to any and all members. Be there!

The afternoon session will be a closed meeting of the Board to conduct the Organization's business, to hear committee reports and to act on matters brought before the board by members and committee action. It is anticipated that the Board may act on some or all of the agenda items, as well as suggestions offered by members during the morning session!

The latest Chapter of QCWA Chartered, subject to Board approval is:

THE WACO (Texas) CHAPTER

Fifteen charter members names accompanied the Charter application and elected officers for the Chapter are:

Jerry D. Gage, Sr., K5BVS, President
G. M. Erickson, W5POG, Secretary

Waco is a really active area for QCWA members, and many of the old-timers in Amateur radio live in and about the City... our congratulations to the Chapter, it Officers and all who worked to make it come true. Waco Chapter, No. 129, was chartered September 24, 1980.

WHEN MEMBERSHIP APPLICATIONS ARE ACCEPTED BY CHAPTER SECRETARIES, IT IS SUGGESTED THAT THE APPLICATIONS BE CAREFULLY CHECKED TO SEE THAT ALL DATA, SIGNATURE, PROOF OF LICENSING, ETC., ARE LEGIBLE, AND THE CORRECT FEES ARE ATTACHED.

ONLY MEMBERSHIP FORM 10E, DATED AUGUST 14, 1980, SHOULD BE USED...DESTROY ALL OTHERS WHICH HAVE INCORRECT MEMBERSHIP FEE SCHEDULES.

HEADQUARTERS WILL BE MAILING THIRD QUARTER NOTICES TO MEMBERS WHOSE DUES HAVE EXPIRED, OR WILL SOON EXPIRE. QCWA SERVICES END UPON DUES EXPIRATION. MEMBERS ARE KEPT ON THE QCWA MEMBERSHIP ROSTER FOR SIX MONTHS AFTER DUES EXPIRATION.

THE FOLLOWING FCC RELEASE, DEALING WITH COMMERCIAL RADIO LICENSES HAS BEEN MADE A PART OF THE HLR DUE TO CONSIDERABLE INTEREST IN THIS MATTER BY MEMBERS. PLEASE NOTE THAT THIS IS A FURTHER NOTICE OF PROPOSED RULE MAKING. IT IS NOT APPROPRIATE TO ""WRITE YOU CONGRESSMAN"" AT THIS TIME. COMMENTS, PROPOSALS AND RECOMMENDATIONS MAY BE SUBMITTED TO THE COMMISSION BY NOVEMBER 14, 1980....AN ORIGINAL AND FIVE COPIES ARE REQUIRED!

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Before the
Federal Communications Commission
Washington, D. C. 20554

G-3
FCC 80-481
27850

In the Matter of)
)
An Inquiry Relating to) Docket No. 20817
the Commission's Radio)
Operator Licensing Program)

FURTHER NOTICE OF PROPOSED RULE MAKING

Adopted: August 1, 1980; Released: August 18, 1980

By the Commission: Chairman Ferris issuing a separate statement.

1. In this Notice, the Commission proposes to discontinue the issuance of new and renewed First Class Radiotelephone Operator Licenses, and to eliminate the requirement for licensing by examination of operators who perform installation, maintenance, and technical supervision of the operation of transmitting equipment at AM, FM, non-commercial educational FM, and TV Broadcast Stations, and TV and FM Broadcast Translator Stations. 1/ It is proposed that the Commission's rules be modified to allow individuals performing any technical duties at Broadcast stations to hold any class of commercial radio operator license, including the Restricted Radiotelephone Operator Permit, 2/ and that the broadcast station licensees be fully responsible for determining the competence of employees responsible for all transmission system technical activities at their stations.

1/ This Further Notice of Proposed Rule Making will not address the operator requirements of other stations in the broadcast auxilery services licensed under Part 74 of the FCC Rules. Instead, these stations will be dealt with in a future proceeding. While we realize some temporary anomalies may result (i.e., less complex transmitters in the auxilary services having more stringent operator requirements than complex AM, FM, and TV transmitters) we will allow this to happen because to correct the anomalies now would delay this rule making and the public interest benefits that we expect to result. Since the transmission equipment for FM and TV translators is similar to that used in the regular broadcast services, we believe the same maintenance operator licensing requirements should be applicable.

2/ No oral or written examination is required to obtain this permit. Applicants are required to certify in writing that they have a need for the requested permit; can receive and transmit spoken messages in English; can keep at least a rough written log in English or in some other language that can be readily translated into English; are familiar with the treaties, laws, and rules and regulations governing the authority granted under the requested permit; and understand that it is their responsibility to keep currently familiar with all such provisions.
(47 U.S.C. 13.22(h))

HISTORY OF THIS DOCKET

2. This Notice is part of a larger ongoing proceeding that is addressing the matter of Commission licensing of commercial radio operators in all services, broadcast and non-broadcast, directed primarily to the radiotelephone operator class of license. (Notice of Inquiry, released June 7, 1976, FCC 76-746, 41 F.R. 22981; Notice of Proposed Rule Making released August 4, 1977, FCC 77-528, 42 F.R. 40939). 3/

3. The First Report and Order in this proceeding reduced the requirement for duty operators at AM and FM broadcast stations, except those AM stations with critical directional antennas, to the holder of any class of commercial operator license, including the Restricted Radiotelephone Operator Permit, in lieu of the Radiotelephone Third Class Operator Permit endorsed for broadcast operation. (Released January 5, 1979, FCC 78-871, 44 F.R. 1733, 70 FCC 2d 2371.)

4. The Second Report and Order authorized both AM stations with critical directional antennas and TV stations to employ operators holding any class of operator license for routine operating duties as long as the station has in its employ at least one first class operator. Stations electing to use lesser grade operators for routine operating duties must designate the first class operator as chief operator whose responsibilities include, among other things, review of operating logs, conducting station technical inspections, performance or supervision of all installation, maintenance and adjustments of the transmitting system, and continuing training and supervision of the lesser grade operators in the performance of their operating duties. The Second Report and Order further provided that the required employment of a first class operator, for all stations at which a chief operator must be designated, should be full time, or whatever less than full time the licensee determines is necessary to keep the station's technical operation in compliance with FCC rules. (Released November 16, 1979, FCC 79-721, 44 F.R. 66861)

5. It was stated in the Second Report and Order that other matters contained in this overall proceeding would be considered in the near future by means of a Further Notice of Inquiry, Further Notice of Proposed Rule Making, or a Report and Order, as may be appropriate.

COMMENTS

6. Of the more than 500 comments and reply comments filed in response to the Notice of Inquiry, 341 addressed the question of whether the Radiotelephone First Class Operator License requirement should be retained for personnel performing installation, maintenance, repair, and technical supervision of AM, FM, and TV transmitting equipment. These comments and reply comments revealed diverse points of view. Assigning commenters to broad categories, those favoring or opposing retention of the requirement were distributed as follows:

3/ In the Notice of Inquiry, more than 500 parties filed formal and informal comments. One reply comment was filed.

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	Favor Retention	Oppose Retention
Holders of First or Second Class Licenses	95	1
Station Managers and Licensees	48	48
Groups, Organizations, and Multiple Licensees	15	2
Consulting Engineers	4	3
Others (Unlicensed or Interest Not identifiable)	30	95

7. Among the commenters favoring retention of the licensing requirement was the National Association of Broadcasters, which includes in its membership thousands of broadcasters. However, among the individual broadcast station licensees and managers who commented, an equal number favored and opposed retention. Typical of broadcaster comments in favor of retaining the first class operator license requirement was that of Morris H. Blum, President of Annapolis Broadcasting Corporation (WANN), an owner-licensee of 31 years, who said "While it can be argued that a licensee can, without undue trouble, find technically proficient unlicensed persons to maintain the station's technical equipment and consequently, the Commission's operational requirements under its rule, we would prefer to employ a full-time licensed service operator who has, at the very least, demonstrated some degree of technical knowledge and ability by passing a required examination."

8. The general contention of those broadcast station licensees and managers opposed to retention was that persons holding a first class license have not necessarily proved that they possess any practical technical expertise, whereas many technically competent persons do not hold FCC operator licenses. They feel that since the Commission holds the station licensees responsible for the proper operation of the station, they should be free to employ any person they believe to be technically competent to meet the needs of that particular station.

DISCUSSION OF THE COMMENTS

9. The commenters provided arguments for and against retention of the first class license requirement, but did not provide empirical support for their positions. Predictably, licensed technicians argued that the license provided proof of competence; non-licensed technicians disagreed. Also, not surprisingly, large market broadcasters tended to favor licensing; small market broadcasters tended to favor its elimination.

10. In many small markets licensed technicians are scarce and broadcasters with limited revenues object to paying what they consider artificially high salaries to licensed technicians when, in their opinion, qualified nonlicensed technicians are available. The claim that existing Commission rules requiring broadcasters to meet technical standards, and the imposition of sanctions upon those who fail to meet these rules, will provide sufficient incentive for the broadcasters to hire competent technical help.

11. Large market stations, on the other hand, operate in a different environment. Station revenues tend to be substantially greater in these markets and there is generally a greater supply of licensed technicians. Because licensed technicians are not scarce, mere possession of a license is not sufficient for a technician to command a high salary. Practical experience is also necessary. In fact, large market stations generally hire only technicians with several years' broadcast experience (usually in small market stations), at relatively higher pay. Therefore any special salary compensation that possession of the license might convey is a smaller share of the total salary (and also of station revenues). As a result, many broadcasters in large markets find that, even if the license does not guarantee competence, it does act as a screening device that reduces the number of job applicants in a well-supplied market, thereby reducing the broadcasters' search costs without unduly increasing the cost of salaries.

12. The comments suggest that there are both benefits and costs associated with the current operator licensing procedures. To the extent that the license examination measures technical competence, it is a useful screening device that reduces the likelihood that human error will result in poor broadcast signal quality or interference. At the same time, the licensing process imposes costs. There are administrative costs to the Commission and higher salary costs to stations in geographic regions with a shortage of licensed operators. Most significantly, costs are imposed if the license examination does not accurately measure technical competence and knowledge in the FCC operating rules, procedures, and standards--the costs of excluding competent technicians who are not skilled at taking written examinations 4/ and of licensing individuals who can pass a written examination but do not have the necessary technical skills to install, maintain, repair, and supervise operation of transmitting equipment.

13. This discussion of the comments suggests that the following key questions must be answered:

A. Does FCC examination of operators who perform transmitter installation, service, and maintenance, and who train and instruct lower grade operators, contribute to the operation of broadcast stations within FCC technical standards?

> If the answer is "no", then it is not in the public interest to require examinations since they impose costs but do not provide benefits.
>
> If the answer is "yes", then ask question "B".

B. Are there other forces--including competitive market forces, the Commission's technical rules and standards, and sanctions against errant stations--that can effectively assure that broadcast stations will be operated within the FCC's technical standards without the need for examinations.

> If the answer is "yes", then the examinations represent a costly and unnecessary restriction that is not in the public interest.
>
> If the answer is "no", then continuing the examination of operators would be in the public interest.

THE GEORGIA TECH STUDY

14. Subsequent to the close of the comment period, the final report of the Broadcast Regulation Tradeoff Study, 5/ which was prepared for the Commission by the Communications Technology Group of the Electronics Technology Laboratory at the Georgia Institute of Technology, was released. This study addressed, for AM, FM, and TV services, the relationship between signal quality and interference potential and the various Commission activities designed to monitor and regulate signal quality. Of particular interest in the instant matter are the analysis, conclusions, and recommendatio pertaining to the examination and licensing of operators employed in the broadcast industry. Pertinent portions of the report are attached as Appendix A. 6/

15. The Georgia Tech study relied in part on an informal telephone survey that was not scientifically designed and its findings cannot be considered definitive. Though limited, it is a systematic investigation of the effectiveness of the various Commission activities relating to broadcast signal quality, and as such may provide useful information that can be used as a basis for decision making.

16. FCC operator license examinations will contribute to the operation of broadcast stations within FCC technical standards only if they accurately gauge the applicant's technical competence to install, service, and maintain transmitter equipment. The Georgia Tech study indicates that, at present, possession of a first class operator license does not assure such technical competence. There are many relevant references in the study (see, for example, Appendix A, paragraphs 3-6), including the concise statement, in paragraph 16, that

> ...the examination for maintenance and repair should be more relevant and meaningful. The validity of the present examination process in measuring competence is questionable.

17. The Georgia Tech study never directly addresses the question of whether a license examination could be constructed that accurately measures technical competence. However, the study suggests, at paragraph 4, that

> the additional requirement of practical experience, education, and a service record included in the licensing process would improve the qualifications of licensed operators.

How these additional factors could be included in the licensing process is not addressed.

4/ This cost may fall disproportionately on minority technicians who have received practical training and experience with telecommunications systems in the armed forces, but who for social or other reasons may be unable to fare well on written examinations.

5/ By R.W. Rice, E.E. Donaldson, F.E. Grambling, H.H. Jenkins, D.K. Kelly, R.W. Moss, and J.L. Wood, Georgia Tech Project A-2073, Contract FCC-0243, March 1979.

6/ For ease of reference, the excerpts from the Georgia Tech study in Appendix A have been assigned paragraph numbers and these are referred to in this Notice. These paragraph numbers do not appear in the text of the original report.

18. With respect to the question of other forces operating to assure broadcast station operation within Commission technical standards, the Georgia Tech report identifies a number of existing mechanisms, including the reliability of available broadcast equipment, station licensing procedures, and a variety of Commission activities such as equipment authorization, transmitter system operation regulations, monitoring and inspection activities, and violation notices and sanctions placed on station licensees for failing to meet Commission standards. (See Appendix A, paragraphs 6, 7, and 11.) In addition, the Georgia Tech study suggests that competitive market forces tend to operate to assure signal quality control.

19. The Georgia Tech study notes, however, that competitive market forces may not exist to curb interference problems. As is stated in paragraph 9:

> In the technical area of interference control, there does appear to be some advantage of operator licensing. Interference, although manifested as a lack of quality at a listener or viewer's receiver, is not necessarily subject to the same competitive forces as transmitted signal quality. For example, it is entirely possible that a given broadcaster may maintain a high quality signal to his audience, but a spurious emission from his broadcast equipment could disrupt or reduce the quality of another broadcaster or even another radio service. In the extreme, it is even possible that a given broadcaster could be motivated to deliberately interfere.
>
> Notwithstanding these possible advantages of controlling interference by requiring use of licensed operators, our assessment did not reveal a strong relationship. It is highly probable that in those instances where interference has occured, the cause may be attributed to other factors such as equipment reliability. Moreover, our results indicate that the present overall level of signal quality is remarkably high.

20. Where the station has an incentive to produce interference through deviate operation, it is not apparent that operator licensing requirements will protect the public. For a station to purposely cause interference (or to fail to correct inadvertent interference) both the station licensee and the technical operator must cooperate. There is no *a priori* reason to expect a licensed operator to be any more honest than an unlicensed operator unless the former faces a credible threat of loss of license if caught improperly maintaining or operating transmitting equipment. The Commission has never imposed such a penalty upon an operator licnesee in broadcasting, on the assumption that the station licensee bears final and total responsibility for all station activity. In this situation it is not obvious that licensing of operators will provide an incentive for interference control.

21. With respect to operator licensing, the Georgia Tech study concludes with the following recommended alternatives:

> 1. Reduce the current operator licensing program for broadcast operation to a registration program and eliminate the requirements for examinations, or

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2. Alter the current licensing program so that only individuals who perform broadcast maintenance or repair must pass a relevant and meaningful examination of their abilities.

The first alternative is a direct outcome of the apparent lack of strong correlation between broadcast technical signal quality and use of licensed operators. The suggested registration process without technical examination should meet the Communications Act requirements and should permit reasonable allocation of responsibility.

The second alternative is presented primarily in recognition of the possibility that non-technical factors may indicate a need for certified operators and the fact that the broadcast industry as a whole may wish the Commission to continue to certify the minimum competence of operators. (Paragraphs 13, 15, 16)

22. The study adds a caveat concerning a potential transitional period after delicensing is introduced.

If the first alternative identified above is implemented, it is expected that there may be some transient effects observed in small market areas. In such areas there may be a tendency on the part of some station owners to hire anyone, qualified or not, to operate or maintain their station. Part of the motivation for this would be to lower personnel cost, but it is expected that an equilibrium will be reached between the cost of having problems and the cost of not having problems.

23. It is difficult to predict the likely incidence of the scenario suggested by the Georgia Tech study--that some stations might initially try to take advantage of delicensing by hiring inexpensive, but incompetent, technical help, but eventually will recognize the costs associated with the resultant technical problems and thus hire competent staff. Station licensee response to the relaxation of technical licensing requirements in the First and Second Reports and Orders in this proceeding 7/ might provide, at best, limited anecdotal evidence. 8/ We therefore invite comment, particularly empirical evidence, on the good and bad effects that have occurred as a result of:

1. the relaxation of the rules to permit the routine operation of any AM, FM, or TV broadcast transmitter by persons who have not been examined by the Commission, and

2. the recent rule changes permitting the employment of chief operators on a "less than full-time" rather than on a "full-time" basis.

24. The Commission has recently issued a Notice of Proposed Rulemaking 9/ concerning broadcast station license renewal procedures that proposed, among other things, to employ random, in-depth investigations of stations, including field audits. These audits would cover station compliance with technical and non-technical rules. It is expected that these random audits would place increased pressure on station licensees to abide by all Commission regulations and, as such, would provide incentives for stations to hire competent technical staffs to assure compliance with the commission's technical rules. The need for operator licensing may therefore be diminished.

ANALYSIS AND CONCLUSIONS

25. There is evidence that the current First Class operator license examination may fail to accurately measure technical competence to install, maintain, repair, and supervise operation of AM, FM, and TV transmitting equipment. It is clearly impractical for the Commission to test applicants directly on transmitting equipment--i.e., to require applicants to make repairs, etc., in the presence of examiners. The Georgia Tech study recommendation to include a requirement of practical experience, education, and a service record in the licensing process appears to be the next best solution, but this too is fraught with difficulties. Standards are difficult to develop and monitor. Anyone familiar with interpreting resumes knows the uncertainty that they offer if follow-up contacts are not possible. The Commission could scarcely handle administratively reliance on letters of reference. 10/

26. Even if an effective license examination procedure could be constructed, there appear to be a number of other forces--especially other Commission imposed rules, requirements, and potential sanctions--that may render technical operator licensing largely redundant. Since such licensing imposes costs, but primarily provides redundant benefits, it appears to be in the public interest to now eliminate the operator requirements to the maximum extent the Communications Act will allow.

PROCEDURAL ISSUES

27. If the proposed rule modifications are adopted, the Commission would no longer conduct examinations for, or continue to issue, the First Class Radiotelephone license, as it would no longer be required of any operator. Individuals currently holding First Class licenses would continue to hold them, but upon application for renewal they would be issued Radiotelephone Second Class license documents. Holders of any class of commercial operator license, including the Restricted Radiotelephone Operator permit, would be allowed to install, maintain, repair, and technically supervise AM, FM, and TV transmitting equipment. Station licensees would continue to be responsible for all aspects of station operations. The proposed modifications to Parts 13, 73, and 74 of the Commission rules are presented in Appendix B.

7/ See paragraphs 3 and 4, supra.

8/ The Field Operations Bureau has initiated a 90-day survey to compare compliance of stations that have implemented the relaxed operator rules produced in the Second Report and Order with those that have not implemented them. It may be impossible to extract useful data from this survey as no comparative data exist for the period prior to the Second Report and Order, and we won't know how stations in each of these groups behaved before the rule change. This matter is open for further comment in this proceeding and will continue to receive Commission attention during the comment period.

9/ Notice of Proposed Rule Making, adopted June 4, 1980, FCC 80-327.

10/ Individual employers, on the other hand, with a limited number of job applicants, could handle such job screening functions quite efficiently.

28. The Commission is aware that some current employment contracts and personnel procedures require employees to hold First Class licenses and that compensation is sometimes dependent upon the class of license held. In many cases these requirements or standards stem from existing Commission rules; changes in these rules would render the need for such requirements obsolete. In any case, contracts, personnel procedures, and compensation standards could be modified readily to take into account experience or training or to substitute specific task requirements for employees' license status. Also, these are simply matters of distributing income between employees and employers and therefore should not be relevant to the public interest unless they will affect the quality of broadcast service offered. There may be transition and other unanticipated costs imposed upon some individuals by the rule changes, however, and therefore comments from affected parties are solicited.

29. Further information concerning this Notice of Proposed Rule Making can be obtained from Roy Kolly or Vernon Wilson, telephone (202) 632-7240, or Charles B. Goldfarb (202) 632-6460, FCC, Washington, D.C. However, members of the public should note that from the time a Notice of Proposed Rule Making is issued until the matter is no longer subject to Commission consideration or court review, the proceeding is governed by the interim policy of the Commission on ex parte contacts.

30. A summary of procedures in the interim policy is available from the Commission's Consumer Assistance Office, FCC, Washington, D.C. 20554, (202) 632-7000.

31. It provides, in pertinent part, that an ex parte contact is a message (spoken or written) concerning the merits of a pending rule making other than comments officially filed at the Commission or oral presentations requested by the Commission. Each such written ex parte communication is to be sent to the Secretary's office to be placed in the public docket file. If an individual wants to discuss a pending rule making with a Commissioner or a staff member, the individual should make arrangements for a meeting, or, if a meeting is imposible, a telephone call. The individual must prepare, and bring with him/her, a memorandum summarizing the points to be discussed. If the discussion must be held over the telephone, the summary memorandum must be sent in advance. The memorandum and any update thereof will be placed in the public docket file. Spontaneous ex parte communications should not take place.

32. In reaching its decision, the Commission may take into consideration information and ideas not contained in the comments, provided that such information or a writing indicating the nature and source of such information is placed in the public file, and provided that the fact of the Commission's reliance on such information is noted in the Report and Order.

33. Interested persons desiring to submit comments, proposals and recommendations pertaining to the above matter may do so on or before November 14, 1980. Replies to such comments, proposals or recommendations may be submitted on or before December 15, 1980. All relevant and timely filed comments will be considered.

34. Pursuant to Section 1.419 of the Commission's Rules, an original and 5 copies of all statements, briefs or comments filed in response to this Notice shall be furnished to the Commission.

35. In an effort to obtain the widest possible response to this proceeding, informal comments (without extra copies) will be accepted. Such informal comments should specifically reference this proceeding.

36. Responses will be available for public inspection during regular business hours in the Commission's Public Reference Room at its headquarters, 1919 M Street, NW., Washington, D.C. 20554.

37. Authority for this action is contained in Sections 4(i), 303(i), and 303(r) of the Communications Act of 1934, as amended.

FEDERAL COMMUNICATIONS COMMISSION

William J. Tricarico
Secretary

Attachment: Appendices

APPENDIX A

(EXCERPTS FROM GEORGIA INSTITUTE OF TECHNOLOGY REPORT)

OPERATOR EDUCATION AND SELECTION

1. Broadcast stations are comprised of a fairly complex array of electronic equipment. The proper operation and maintenance of station equipment to provide quality service which meets or exceeds FCC requirements is largely dependent upon the qualifications of station personnel. Some station operations (running tape recorders, program editing, etc.) may be adequately performed by inexperienced, unlicensed personnel under the proper supervision of the primary station operator. Generally, however, the hour-by-hour operation and servicing of the station equipment must be under the control of an operator with considerable technical expertise. Although experience is a major contributing factor to operator technical knowledge, the educational background of station personnel is a governing factor which strongly influences personnel qualifications for station operation and maintenance.

2. A number of schools offer courses related to the educational needs of operator/maintenance personnel in the broadcast industry. A number of comments are pertinent to the type of courses offered. First, the course contents and objectives range from those concerned with basic electronic fundamentals through FCC license qualifications to those which prepare a student for a primarily non-technical career in public broadcasting. Second, the courses range in length from 6 weeks to 2 years.

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3. Third, many of the courses appear to be directed solely to preparing a student for FCC license qualification. This is not surprising since there are no educational requirements for station operators, only FCC licensing requirements. This could be a possible weakness in establishing station operator requirements if the examination material is not kept up to date and/or is not of sufficient depth and breadth to assure a certain level of technical competence and knowledge by those persons receiving licenses.

4. Although not a requirement or prerequisite for station operators, education is an obvious factor in the selection and hiring of personnel because the mere obtaining or holding of a license does not automatically assure that an operator is technically qualified to assume the operation and maintenance responsibilities of a station. A student could pass an examination via a crash "memory" type course directed to FCC licensing exam preparation, and/or the examination could be compromised through repetitive offerings if the subject material were not changed. It is thus possible that a person could become a licensed operator without having a sound background in technical principles and practices. The process of selecting and hiring operators appears to vary considerably with station size for a number of reasons. Smaller stations typically have lower pay scales, less job security, and fewer job related benefits than the larger stations and hence tend to have greater difficulty in hiring and retaining qualified personnel. The process of selecting and hiring operators appears to vary considerably with station size for a number of reasons. Smaller stations typically have lower pay scales, less job security, and fewer job related benefits than the larger stations and hence tend to have greater difficulty in hiring and retaining qualified personnel. The larger stations apparently have little difficulty in obtaining experience license operators and generally have a small turnover of personnel. This is undoubtedly due to job stability, working conditions and benefits, and pay scales. Also, some of the larger stations sponsor "continuing education" programs for station operators. Indications are that the larger stations are highly in favor of the FCC licensing program, which serves as a screening process for potential employees, but the additional requirement of practical experience, education, and a service record included in the licensing process would improve the qualifications of licensed operators.

5. Additional information was obtained from an informal telephone survey of broadcasters. This survey was not scientifically designed, and no attempt was made to select statistically valid samples or to preclude broadcaster biases. Nevertheless, the resulting opinions are significant and when related to other independent indicators yield useful general characteristics. Some of the more significant salient trends are as follows:

- Operators with only a background oriented toward passing the various FCC license exams do not typically perform well in jobs requiring technical skills,
- Military training in electronics has frequently been mentioned as a good background for operators who perform technical maintenance tasks,
- The large stations in the larger markets actively seek individuals who have an electronics background, a first class radiotelephone license, and two or three years of experience in small stations where they have had major responsibilities for all aspects of station operation,

- Both market size and geographical factors influence the availability of competent technical personnel, and
- The negative influences of geography are more evident than the positive influences, and the negative influences fall most heavily upon the small stations in the small market areas.

CONCLUSIONS: OPERATOR LICENSING

6. Based on our assessment of the interrelationships between quality and interference and the operator licensing program, it is not evident that operator licensing is needed to ensure use of adequately skilled personnel in commercial broadcasting. Our technical analysis of quality and interference factors has shown that there are situations, although relatively few in number, in which the stations's operator can influence interference or signal quality, but the present concern is with the impact of the license held by the operator upon station performance. Our assessment is that the license's impact is minimal for the following reasons: (1) A review of the currently available broadcast equipment and the design philosophies behind that equipment indicates that reliability and high performance were design goals, and that in general, these objectives have been met in the major equipment lines. Thus, proper operation with respect to quality and interference is not the result of an extremely delicate balance of a host of technical parameters under the control of the station's operator; and (2) the technical analysis of Chapters 5 and 6 has identified areas where the operator may influence quality and interference problems. Few such areas of any significance have been found, and for the ones identified, it is not evident that a license examination would contribute to the reduction or elimination of such problems.

7. Typically, the technical staff in large market stations is highly trained and motivated by market pressures to maintain a high level of signal quality. In the absence of operator licensing, competition in the labor markets and market competion would act to provide the mix and levels of skills which broadcast stations need. The minimum manpower skills would ultimately be dictated by the station performance criteria and as demanded by commercial advertisers. Minimum station performance requirements are likely to continue to be imposed on broadcasters by the FCC and by market forces regardless of whether operating personnel are licensed or not. The broadcasters necessarily impose corresponding performance requirements on their operating personnel, and they would have to do so regardless of whether or not personnel are licensed. Operator licensing, not being contingent upon performance measures, makes only short lived, if any contributions to station operation. Equivalent personnel skills would be forthcoming by other means: voluntary self training, on-the-job training, etc. It may be concluded that the technical service rendered by the commercial broadcast industry is not highly dependent on the FCC's operator licensing program.

8. One tendency of the operator licensing requirement is to restrict the supply of labor in commercial broadcasting and hence to increase labor costs which will be passed on (indirectly) to the public. Any impact the licensing requirements might have on raising skill levels over and above those that are required by the broadcasters themselves are of little demonstrable value to the general public. It can be concluded that from the viewpoint of technical signal quality the operator

licensing requirements provides no increase in public service, and even ignoring the direct cost to the FCC to maintain the requirements, operator licensing has a public cost reflected in some incremental supply (advertiser) costs for market goods and services.

9. In the technical area of interference control, there does appear to be some advantage of operator licensing. Interference, although manifested as a lack of quality at a listener or viewer's receiver, is not necessarily subject to the same competitive forces as transmitted signal quality. For example, it is entirely possible that a given broadcaster may maintain a high quality signal to his audience, but a spurious emission from his broadcast equipment could disrupt or reduce the quality of another broadcaster or even another radio service. In the extreme, it is even possible that a given broadcaster could be motivated to deliberately interfere. Notwithstanding these possible advantages of controlling interference by requiring use of licensed operators, our assessment did not reveal a strong relationship. It is highly probable that in those instances where interference has occurred, the cause may be attributed to other factors such as equipment reliability. Moreover, our results indicate that the present overall level of signal quality is remarkably high.

10. There are special interest groups which gain from the FCC operator requirements. These include profit making technical schools which depend on the FCC licensing requirement to recruit students. Inexperienced operators probably command a wage premium because they are licensed. Broadcasters can possibly avoid some training costs which might otherwise have to be incurred to impart needed technical skills to employees. These are largely transfer payments when the individuals in these groups are viewed simply as members of the larger group, the general public. The purpose of the licensing requirement, however, is not to serve these special small segments of the public particularly in light of fact that the gains of any such groups are ultimately felt as an unnecessary and uncompensated net cost to the general public.

11. It should also be noted that, to some extent, operator licensing serves a function which is redundant with the functions of other FCC programs. For instance operator licensing, like equipment authorization, and transmitter system operation regulations, helps prevent quality problems from occurring. Monitoring and inspection deter and detect transmission problems, some of which at least may be due to inadequately trained or supervised personnel. Violation notices and sanctions also tend to deter operator-induced problems as well as others. Thus the quality-enhancement function served by operator licensing is also served by other FCC programs, which have decidely more direct impacts on moderating transmission problems.

RECOMMENDATIONS: OPERATOR LICENSING

12. Based on results of the broadcast tradeoff study and the conclusions summarized earlier, the following actions are recommended with regard to proposed rules concerning use of licensed operators for broadcast operation. As noted previously these recommendations arise from evaluation of signal quality and interference. Other considerations could complement or contradict these recommendations.

13. The general trend of Docket No. 20817 to relax operator requirements in the broadcast service is consistent with our findings. We recommend that this deregulatory trend be followed since no clear evidence exists to support stronger and more rigid requirements. Specifically, we recommend the following alternatives:

1. Reduce the current operator licensing program for broadcast operation to a registration program and eliminate the requirements for examinations, or

2. Alter the current licensing program so that only individuals who perform broadcast maintenance or repair must pass a relevant and meaningful examination of their abilities.

14. Both alternatives appear to be consistent with the Communications Act of 1934. This Act requires that individuals who operate broadcast stations be licensed, but it does not indicate the depth and degree of competence certification.

15. The first alternative is a direct outcome of the apparent lack of strong correlation between broadcast technical signal quality and use of licensed operators. The suggested registration process without technical examination should meet the Communications Act requirements and should permit reasonable allocation of responsibility.

16. The second alternative is presented primarily in recognition of the possibility that non-technical factors may indicate a need for certified operators and the fact that the broadcast industry as a whole may wish the Commission to continue to certify the minimum competence of operators. It is our view that, with regard to technical signal quality, the principal benefit is to be gained by licensing those individuals who deal directly with broadcast station maintenance, repair, and installation. These activities have potentially the greatest impact on signal quality and interference. Routine station operation should not require competence certification by examination. However, it must also be emphasized that the examination for maintenance and repair should be more relevant and meaningful. The validity of the present examination process in measuring competence is questionable. In many cases it appears only to measure individual persistence in memorization rather than indicate attained competence.

17. If the first alternative identified above is implemented, it is expected that there may be some transient effects observed in small market areas. In such areas, there may be a tendency on the part of some station owners to hire anyone, qualified or not, to operate or maintain their station. Part of the motivation for this would be to lower personnel cost, but it is expected that an equilibrium will be reached between the cost of having problems and the cost of not having problems.

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18. In summary the combination of the above two recommended alternatives along with the underlying justifications suggest the following: (1) routine station operation can be satisfactorily carried out by other than licensed operators, and technical signal quality will not be significantly degraded; (2) the present classification of licensed operators (first, second, third, etc.) and the corresponding examination of competence (if any) do not significantly impact technical signal quality; and (3) a licensing program for broadcast operators should either be based on registration without examination for any class of license, or be based on registration without examination for routine station operation and a meaningful operator license for maintenance, repair, and critical adjustment of broadcast transmitters.

APPENDIX B

1. It is proposed to amend the operator requirement rules for AM, FM, non-commercial educational FM, and TV Broadcast Station to include the following provisions:

(a) Present operator requirement rules for AM, FM, Non-commercial Educational FM and TV stations (Sections 73.93, 73,265, 73.565, and 73.661) would be deleted in their entirety. All broadcast operator requirements would be uniform and included in a rule common to all stations in Part 73, Subpart H.

(b) The revised operator requirement rule would indicate that all technical installation, maintenance, and technical supervision of broadcast transmitting apparatus could be performed by an operator holding any class of commercial operator license or permit. The station licensee would be fully responsible for establishing the employment requirements for all operators who perform routine operating duties and technical maintenance of transmitting equipment.

(c) FCC Rules Part 13 would delete the category of First Class Radiotelephone Operator License and all examination requirements for such licenses. No new licenses of this class would be issued. Holders of existing First Class Radiotelephone Operator Licenses, when applying for renewal, would be issued Second Class Radiotelephone Operator Licenses.

(d) Each broadcast station licensee would be required to designate one person holding any class of FCC commercial operator license or permit as the station's chief operator with duties and responsibilities as prescribed for chief operators under the existing rules. This operator must be either employed on a full-time or less than full-time basis. However non-directional AM stations licensed to operate with 10,000 watts or less power, and all FM stations, may engage the services of a chief operator on a part-time contract basis.

(e) Existing requirements for transmission system inspections would be retained in a separate rule section under the title of "Transmission system inspection." (Existing inspection and technical measurement requirements, and technical log rules are beyond the scope of this proceeding, and no changes in such rules are being proposed.)

2. It is proposed to amend the operator requirement rules for TV and FM Broadcast Translator stations as follows:

(a) All operator duties in connection with the installation, inspection and maintenance of translator station transmission equipment may be performed by any person holding a commercial operator license or permit. The station licensee must have full responsibility for determining the qualifications of operators to perform technical duties.

3. It is proposed to amend the operator requirement rules for broadcast experimental and developmental stations by specifying operators holding Second Class Radiotelephone Operator Licenses in lieu of First Class Radiotelephone Operator Licenses as duty operators.

4. No changes are to be made in the operator requirement rules for other broadcast auxiliary stations. The frequency bands used by the broadcast auxiliary stations are either shared with or are adjacent to bands used by non-broadcast services (private radio, common carrier, CARS, marine, etc.), and the transmitting equipment is similar in design and operation to that used by the non-broadcast services. Until such time as the Commission determines in this proceeding the appropriate operator licensing requirement for persons who maintain non-broadcast and non-compulsory radio transmitting equipment, the present operator requirements for the broadcast auxiliary services will be continued.

August 1, 1980

Separate Statement of
Chairman Charles D. Ferris

Re: Proposed Deregulation of First Class Radiotelephone Operator Licensing Program.

This proposal is a major step forward in our ongoing effort to re-examine all of our licensing programs. We need to determine whether our licensing programs of commercial radio operators are necessary in a communications market that responds to a wide-range of pressures, of which we are only one.

Today we seek a final round of comments on whether our First Class Radiotelephone Operator Licenses are an effective or necessary means of insuring that the technical performance of broadcast stations meet our requirements. It appears that the government may be able to remove itself from this process without any adverse impact.

Broadcast licensees, after all, must be as concerned about keeping their audience tuned in as they are in keeping the FCC satisfied with their technical performance. And our rules provide for significant penalties if they do not meet the technical parameters we set.

Further, it is not even clear that the tests we use are the most accurate way to determine the technical competence of operators. These tests do not account for experience and common sense, and they may even be susceptible to "cramming" at the last minute. Broadcasters may well be able to devise their own testing procedures that are far more relevant to their own, and the public's, needs.

QCWA HOTLINE REPORT

THE FOLLOWING MATERIAL WITH RESPECT TO BI-LINGUAL AMATEUR EXAMINATIONS HAS BEEN INCLUDED FOR YOUR INFORMATION. THIS IS SIMPLY A STATUS REPORT...NO NEW ACTION IS INVOLVED. IF YOU DISAGREE WITH THE POLICY ESTABLISHED BY THE COMMISSION IT IS APPROPRIATE TO WRITE THE COMMISSION AND YOUR CONGRESSMAN WITH COHERENT ARGUMENTS TO CONTINUE OR DISCONTINUE THE PROGRAM AS YOU DEEM DESIRABLE.

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Report No. 2138 PRIVATE RADIO ACTION September 18, 1980 - PR

SPANISH LANGUAGE VERSIONS OF ALL AMATEUR RADIO LICENSE EXAMINATIONS TO BE OFFERED

The Commission has reaffirmed its commitment to serve minorities by announcing its intention to offer Spanish language versions of all the elements of the amateur radio examination by the end of 1981.

The examination for combined element 2 and 3 has been available in Spanish since June 1.

The Commission pointed out that the Bureau of the Census found Spanish speaking persons comprise by far the largest non-English-speaking group in the United States. Nearly 13 million persons in the continental United States and Puerto Rico use Spanish as their everyday language.

The Commission said that, as its budget permits, it will produce Spanish language versions of all the amateur examinations, as long as there is a significant demand for them.

The Commission said it expected to have Spanish versions for all elements in use by the end of 1981 and would try to have at least one Spanish version for element 3 ready for use by the end of this year and at least one Spanish version of element 4(A) ready for use by Spring 1981. It said these two elements, in addition to the combined element 2 and 3 exam now in use, comprise 82 percent of the amateur radio written examinations given at the Field Offices.

The FCC said it would announce the availability of Spanish language versions for each element as as soon as they are ready for use.

For more information contact Jay Jackson at 254-6884.

Action by the Commission September 10, 1980, by Memorandum Opinion and Order (FCC 80-511). Commissioners Ferris (Chairman), Lee, Quello, Washburn, Fogarty, Brown and Jones.

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ANNOUNCEMENT OF OPEN BOARD MEETING, FRIDAY, OCTOBER 31, 1980, 9:30 am to 11:30 am...For the purpose of hearing members comments and suggestions.

ANNOUCEMENT OF CLOSED (EXECUTIVE SESSION OF THE BOARD) MEETING FOR FRIDAY, OCTOBER 31, 1980, 1:30 pm to 5:30 pm

COPY OF FCC DOCKET 20817 DEALING WITH REOPENING OF THE DOCKET AND POSSIBLE ACTION REGARDING RADIO-TELEPHONE LICENSING PROCEDURES.

COPY OF STATEMENT REGARDING FCC POLICY WITH RESPECT TO BI-LINGUAL RADIO EXAMINATIONS FOR AMATEUR LICENSING.

QCWA NEWS ITEMS.

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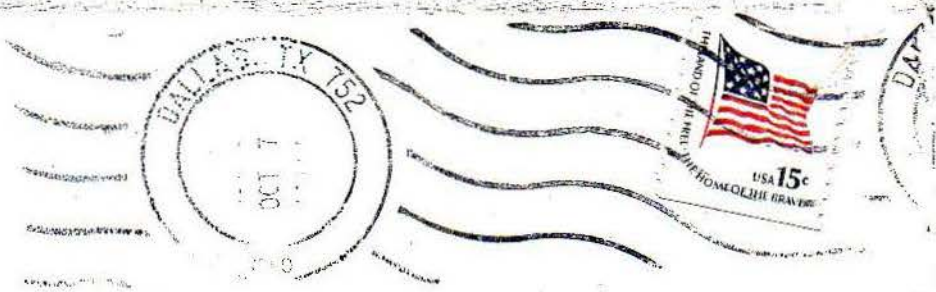

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